

CLAIMS

sub 7.  
AI

1. Planetary transmission having a first sun wheel (2), driven in a first transmission stage (I), which interacts with first planet wheels (3) of a first planet carrier (4) rolling in a first internal gear (6), a last planet carrier (5) driven in the last transmission stage (III) by a last sun wheel (10), which has last planet wheels (11) rolling in a last internal gear (12), and a fixed transmission housing (1), in which the last internal gear (12) of the last transmission stage (III) is rigidly connected with the transmission housing (1),

characterized in that

at least one further transmission stage (II), having a second sun wheel (9), a second planet carrier (8) with second planet wheels (7), and a second internal gear (13), is provided between the first (I) and last transmission stages (III) and the further transmission stages (II) are each connected in series with each other and with the first transmission stage (I), with the sun wheel (9) in each of the further transmission stages (II) being driven by the planet carrier of the preceding transmission stage, the planet carrier concerned driving the respective sun wheel of the following transmission stage (III), and the first and second internal gears (6, 13), in which the planet wheels (3 and 7) of the first and second transmission stages (I, II) each mesh, each being rigidly connected with the last planet carrier (5) or the transmission housing (1).

2. Planetary transmission with a design according to claim 1,

characterized in that

the driving and driven sides are interchanged.

3. Planetary transmission according to claim 1 or 2,  
characterized in that  
it is implemented with three stages.

4. Planetary transmission according to one of the  
preceding claims,  
characterized in that  
at least the last planet carrier (5) is provided with  
four planet wheels (11) across its width.

5. Planetary transmission according to claim 4,  
characterized in that  
only the last and next to last planet carriers (5, 8)  
are each provided with four planet wheels (11, 7)  
across their width.

6. Planetary transmission according to one of the  
preceding claims,  
characterized in that  
the transmission ratio in the transmission stages  
having four planet wheels (11, 7) distributed across  
the width of a planet carrier (5 and/or 8) is  $i = 5.5$   
with even transmission input and output speeds.

7. Planetary transmission according to claim 5,

characterized in that

the transmission ratio is  $i = 5.5$  in the last transmission stage and is  $i = 4$  in the next to last transmission stage.

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